IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Art Unit: 1639
KOGANTY, et al.	)	Examiner: WESSENDORF,
Serial No.: 09/143,379	)	Washington, D.C.
Filed: August 28, 1998	)	June 22, 2005
For: RANDOMLY GENERATED GLYCOPEPTIDE COMBINATORIAL LIBRARIES	)	Docket No.: KOGANTY=8 Confirmation No: 3442

ELECTION WITH TRAVERSE AND PETITION TO VACATE RESTRICTION REQUIREMENT

U.S. Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

S i r :

1. In response to the group-level restriction set forth on page 2 of the requirement failed February 22, 2005, applicants elect group V (claim 30-33, 42-50, 55-82) with traverse. Applicant traverses on the ground that the main claim (45) of group V is allowable and hence dependent method of use claims 38-41 and 51-54 should be rejoined pursuant to MPEP 821.04. The relevance of MPEP 821.04 (if a product claim is allowed) is acknowledged at pp. 7-8 of the office action.

2. The complex species restriction set forth on pp. 3-5 of the office action is rife with typographical errors and ambiguities.

2.1. On page 4, it appears that "5. Glycosylated or non-glycosylated" is intended to be a new species restriction B, rather than a seventh (or "fifth") species to elect in response to species restriction A. It is also a rather confusing statement, considering that the claims are all directed to glycopeptide libraries.

Our best guess as to the Examiner's intent is that she is

asking whether all library members are glycosylated (see claim 77) or just some. The requirement has been so interpreted. If that was not the intent, this requirement should be vacated as ambiguous, and restated if still necessary.

2.2. If "5. Glycosylated or Non-Glycosylated" should be "B.", then "F. Number and location of glycosylation sites in the peptide scaffold" should be "C.". A further issue is what specificity is the examiner demanding.

2.3. If "F." becomes "C.", then "B. Peptide scaffold as recited in claim 45" should be "D.". This group is based on claim 45, with species 1-3 corresponding to limitations (I)-(III). However, it seems to us that species 3 is inaccurately worded (omits "peptide comprising" language of III) and that (IV) has been inadvertently overlooked.

2.4. The reference to claim 3 in connection with species restriction A, species 1, is not understood, as claim 3 was cancelled.

3. Having so clarified the species restrictions, we now make the required elections, all with traverse.

A. Component of carbohydrate structures

Species 3, carbohydrate with O-linkage, as recited in claim 32. All claims read on the elected species.

B. Glycosylated or non-glycosylated

We elect the library in which all members are glycosylated. All claims read on the elected species.

C. Number and Location of glycosylation sites in the peptide scaffold

As to number, we elect the species of claim 70 ("at least two glycosylation sites"). If further specificity is required, we elect 2-5 glycosylation sites, effectively

combining claims 70 and 71. If still more specificity is required, we elect five glycosylation sites.

As to the location of the glycosylation sites, we are not sure what the examiner intends. The exact locations of sites will depend on the sequence of the peptide scaffold, and we have not been asked to elect a specific sequence. However, if the intent is to determine whether all sites are glycosylated (cp. claim 77), we elect the embodiment of claim 77. If we had been asked to elect a specific peptide, it would be the 16 a.a. peptide set forth on page 11, line 18, and the locations of its five glycosylation sites are underlined.

All claims read on the elected species.

D. Peptide scaffold as recited in claim 45

We elect the species corresponding to embodiment III of claim 45, i.e., "said peptide comprises at least a four amino acid subsequence of the core protein of MUC1". At present, we are not aware of any cell surface receptors (claim 30) which would fortuitously read on this species. All other claims read on it.

4. We traverse species restriction A on the grounds that (1) a generic claim is allowable and (2) the restriction violates MPEP 806.04(f) in that the species are not defined by mutually exclusive characteristics.

All claims are considered generic to the species of A since no claim requires carbohydrate linkages excluding O-linkages.

As to the issue of mutual exclusivity, consider the following points:

(a) mucin-1 (species 4) is a malignant cell antigen (species 2).

(b) component carbohydrate structures (e.g., GalNAc) may

appear in both a human cell surface receptor for a bacterial adhesin (species 1) and a malignant cell antigen (species 2).

(c) O-linkages (species 3) are found in many different glycoproteins, including cell surface receptors (species 1), malignant cell antigens (species 2), and mucin-1 (species 4).

(d) A carbohydrate dimer (species 4), such as the structures βGal(1-3) αGalNAc and Sialyl-GalNAc of claim 42, can and do occur in cell surface receptors (species 1), malignant cell antigens (species 2), and mucin-1 (species 4), and can be O-linked to a peptide scaffold (species 3).

(e) any of the carbohydrate structures of species 1-5 can include sialic acid (species 6), as indeed one of the embodiments noted in claim 42 (species 5) explicitly does.

Species restriction A is therefore hopelessly misformulated.

5. Species restriction B (glycosylated or non-glycosylated) is traversed as being unclear (see discussion under 2.1 above). It is also believed that generic claims are allowable.

6. Species restriction C (number and location of glycosylation sites in the peptide scaffold) is traversed for the same reasons as for B, but see discussion under 2.2. above.

7. Species restriction D (peptide scaffold as recited in claim 45) is traversed on the grounds that the restriction sets forth species 3 inaccurately (relative to 45(III)), improperly omits 45(IV), fails to differentiate the species on the basis of mutually exclusive characteristics, and restricts among species embraced by an allowable generic claim. Some of these issues are addressed in 2.3 above. If the Examiner deliberately worded species 3 to omit "comprising", this is improper as it denies us the opportunity to elect a species which <u>comprises</u> but does not <u>consist of</u> the tetrapeptide.

With regard to mutual exclusivity, it is obvious that a cyclic peptide (species 1) could include D-amino acids (species 2). A peptide comprising the four amino acid subsequence (species 3) could be a cyclic peptide (species 1). Depending on how 45(III) is interpreted, it could allow the presence of D-amino acids.

8. Since the restriction requirement is fatally defective for the reasons set forth in sections 2 and 4-7 above, it should be vacated and, if need be, replaced by a new requirement.

The Examiner should carefully consider whether restriction is necessary, given the prior search and examination. If continued examination of all alleged species would not impose a "serious burden" on the Examiner, restriction is improper.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant

By: _____
Iver P. Cooper
Reg. No. 28,005

624 Ninth Street, N.W.
Washington, D.C. 20001
Telephone: (202) 628-5197
Facsimile: (202) 737-3528
IPC:lms
G:\ipc\a-c\biom\Koganty8\PTO ELECTIONTRAVERSE.PETITION.WPD